

## Effect of ATP and its analogs on contractility of rat myocardium during ontogeny

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### Abstract

The effects of P2-receptor agonists on myocardial contractility were examined in rats aging 14-100 days. ATP and its stable analog 2-methylthio-ATP potentiated the contraction force of isolated myocardial strips in a dose-dependent manner. The agonist concentrations producing the positive inotropic effect increased from days 14 to 100 of life. The efficiency of extracellular purines depends on animal age: in 14- and 56-day rats the positive inotropic effects of ATP and 2-methylthio-ATP were similar, while in 100-day rats ATP produced more pronounced effect than 2-methylthio-ATP. © Springer Science+Business Media, Inc. 2007.

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### Keywords

ATP, Contractility, Myocardium, Ontogeny, P2-receptors